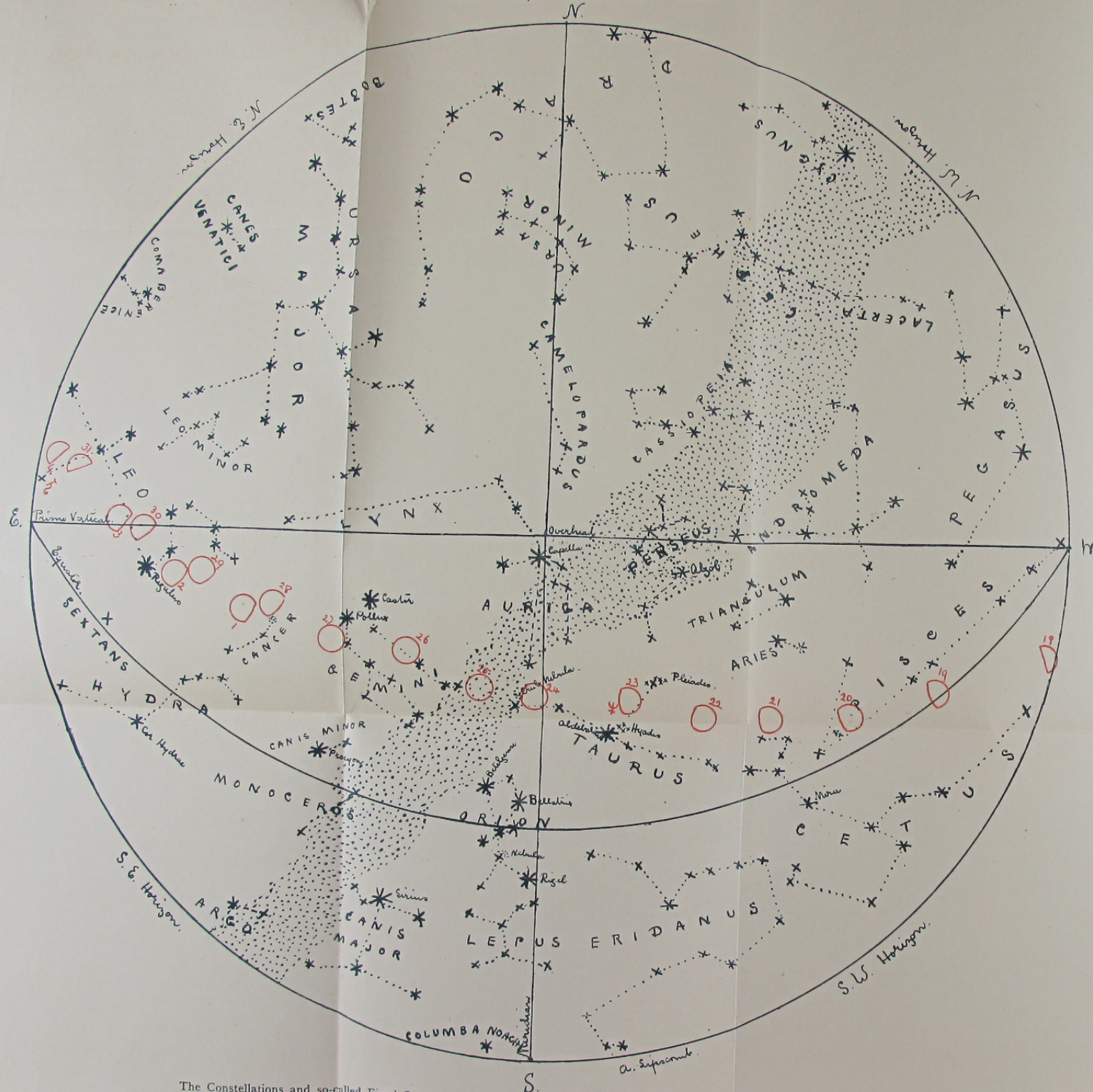


Star Map—December, 1890.



The Constellations and so-called Fixed Stars are named in black ink; the former in capital letters, the latter in small ones.
The Moon and Planets are marked in red ink.
The Moon is represented by its phases; the Planets by their symbols, thus—Saturn ♄, Neptune ♆.

The Evening Sky—December, 1890.

By MRS. L. C. d'A. LIPSCOMB.

THE SUN.

On December 12th there will be a total eclipse of the Sun, invisible at Greenwich, and also on any known land, for it can only be seen in the latitudes of the vast sea surrounding the South Pole. Only in South Australia will it be visible as a partial eclipse.

On the 21st the Sun enters Capricornus, and Winter commences.

Of all the heavenly bodies the Sun is the most important to us, for it is the centre of our system, round which we revolve, and is, moreover, the source of heat, and therefore life, on our globe. It consequently is of the utmost importance to us to know if we are likely to receive the same amount of heat from the Sun in the future as in the past; and in order to achieve that knowledge we must ascertain what is the composition of the Sun, and what are the laws which govern its existence. No easy task this, considering the great distance (92,897,000 miles) which separates us, and the brilliancy of the light, which renders examination difficult. Notwithstanding these obstacles, our knowledge of the Sun's constitution has increased wonderfully during the last few years.

That part of the Sun which we see on looking at it through a telescope is called the *photosphere*. It does not appear quite smooth, its surface rather resembling rough drawing-paper. This is owing to its being composed of grains of intense brilliancy and irregular shape, floating in a darker medium, and arranged in streaks and groups, many of these so-called grains being some hundreds of miles across. With a large telescope these grains resolve themselves into granules—little luminous dots not more than 100 miles or so in diameter. Another feature of the Sun's surface is the long, narrow, blunt-ended filaments, like thatch straw, seen near spots.

Near the edges of the disc the light falls off very rapidly,